



City Painter 2500 Flood

ORDERCODE 40904



SHOUELECTRONICS FOR PROFESSIONALS

Congratulations!

You have bought a great, innovative product from Showtec.

The Showtec City Painter 2500 brings excitement to any venue. Whether you want simple plug-&-play action or a sophisticated DMX show, this product provides the effect you need.

You can rely on Showtec, for more excellent lighting products.

We design and manufacture professional light equipment for the entertainment industry.

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So next time, turn to Showtec for more great lighting equipment.

Always get the best -- with Showtec !

Thank you!



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WARNING



CAUTION!
Keep this device away from rain and moisture!
Unplug mains lead before opening the housing!



**FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY
BEFORE YOUR INITIAL START-UP!**

SAFETY INSTRUCTIONS

Every person involved with the installation, operation and maintenance of this device has to:

- be qualified
- follow the instructions of this manual



CAUTION! Be careful with your operations.
With a dangerous voltage you can suffer
a dangerous electric shock when touching the wires!



Before your initial start-up, please make sure that there is no damage caused by transportation. Should there be any, consult your dealer and do not use the device.

To maintain perfect condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this manual.

Please consider that damages caused by manual modifications to the device are not subject to warranty.

This device contains no user-serviceable parts. Refer servicing to qualified technicians only.

IMPORTANT:

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the device.

- Never let the power-cord come into contact with other cables! Handle the power-cord and all connections with the mains with particular caution!
- Never remove warning or informative labels from the unit.
- Never use anything to cover the ground contact.
- Never run the device without lamp!
- Never ignite the lamp if the objective-lens or any housing-cover is open, as discharge lamps may expose and emit a high ultraviolet radiation, which may cause burns.
- Never lift the fixture by holding it at the projector-head, as the mechanics may be damaged. Always hold the fixture at the transport handles.
- Never look directly into the light source.
- Never open the cover if the lamp is lit.
- Never leave any cables lying around.
- Do not insert objects into air vents.
- Do not connect this device to a dimmerpack.
- Do not switch the device on and off in short intervals, as this would reduce the lamp's life.
- If the lamp has been turned OFF, let the lamp cool down for 15 minutes, before turning the lamp ON again.
- Do not touch the device's housing bare-handed during its operation (housing becomes very hot).
- Do not shake the device. Avoid brute force when installing or operating the device.
- Only use device indoor, avoid contact with water or other liquids.

- Only operate the fixture after having checked that the housing is firmly closed and all screws are tightly fastened.
- Only operate the device after having familiarized with its functions.
- Avoid flames and do not put close to flammable liquids or gases.
- Always replace the lamp, when it is damaged or deformed due to the heat.
- Always keep case closed while operating.
- Always allow free air space of at least 2 meters around the unit for ventilation.
- Always disconnect power from the mains, when device is not used, before cleaning or when replacing lamp! Only handle the power-cord by the plug. Never pull out the plug by tugging the power-cord.
- Always disconnect from power when installing, transporting or moving this device.
- Make sure that the device is not exposed to extreme heat, moisture or dust.
- Make sure that the available voltage is not higher or lower than stated on the rear panel.
- Make sure that the power-cord is never crimped or damaged. Check the device and the power-cord from time to time.
- Make sure that the core diameter of extension cords and power cords is sufficient for the required power consumption of the device. This device uses 2680W !!
- Make sure you use the right kind of wiring; otherwise wrong wiring can cause fire and short-circuit.
- If the lens is obviously damaged, it has to be replaced. So that its functions are not impaired, due to cracks or deep scratches.
- If device is dropped or struck, disconnect mains power supply immediately. Have a qualified engineer inspect for safety before operating.
- If the device has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it has reached room temperature.
- If your Showtec device fails to work properly, discontinue use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Showtec dealer for service.
- For adult use only. City Painter must be installed out of the reach of children. Never leave the unit running unattended.
- For replacement use lamps and fuses of same type and rating only.
- Allow 15 minutes to cool down, before opening the cover and replacing lamp. The lamp can still be hot, so be careful.
- The user is responsible for correct positioning and operating of the City Painter. The manufacturer will not accept liability for damages caused by the misuse or incorrect installation of this device.
- This device falls under protection class I. Therefore it is essential to connect the yellow/green conductor to earth.
- During the initial start-up some smoke or smell may arise. This is a normal process and does not necessarily mean that the device is defective.
- Repairs, servicing and electric connection must be carried out by a qualified technician.
- WARRANTY: Till one year after date of purchase.



CAUTION ! EYEDAMAGES !.
Avoid looking directly into the light source.
(meant especially for epileptics) !



OPERATING DETERMINATIONS

This device is not designed for permanent operation. Consistent operation breaks will ensure that the device will serve you for a long time without defects.

The minimum distance between light-output and the illuminated surface must be more than 5.0 meter.

The maximum ambient temperature $t_a = 45^\circ\text{C}$ must never be exceeded.


The relative humidity must not exceed 50 % with an ambient temperature of 45°C .

If this device is operated in any other way, than the one described in this manual, the product may suffer damages and the warranty becomes void.
Any other operation may lead to dangers like short-circuit, burns, electric shock, lamp explosion, crash etc.
You endanger your own safety and the safety of others!

Improper installation can cause serious damage to people and property !

Connection with the mains

Connect the device to the mains with the power-plug.
Always pay attention, that the right color cable is connected to the right place.

International	EU Cable	UK Cable	US Cable	Pin
L	BROWN	RED	YELLOW/COPPER	FASE
N	BLUE	BLACK	SILVER	NUL
	YELLOW/GREEN	GREEN	GREEN	EARTH

Make sure that the device is always connected properly to the earth!

Improper installation can cause serious damage to people and property !

Description of the device

Features

The Showtec City Painter 2500 is a colourchanger with high output and great effects.

- DMX-control via standard DMX-controller
- 5 DMX-control channels required
- IP-54 Protection degree
- Stand-alone control or Master-Slave control
- Colours: Full CMY colourmixing
- Strobe: 1-7Hz
- Colour Temperature: 5600K; Flux: 240000 Lux
- Dimmer 0-100%
- Lamp: HMI-2500
- Case: D7481B (not included)

Note: If the lamp has been turned OFF, let the lamp cool down for 15 minutes, before turning the lamp ON again.

Overview



Fig. 1

Backside

3 PIN CONNECTOR FOR POWER INPUT

L	=1) NEUTRAL
N	=2) LIVE
⏏	=3) EARTH

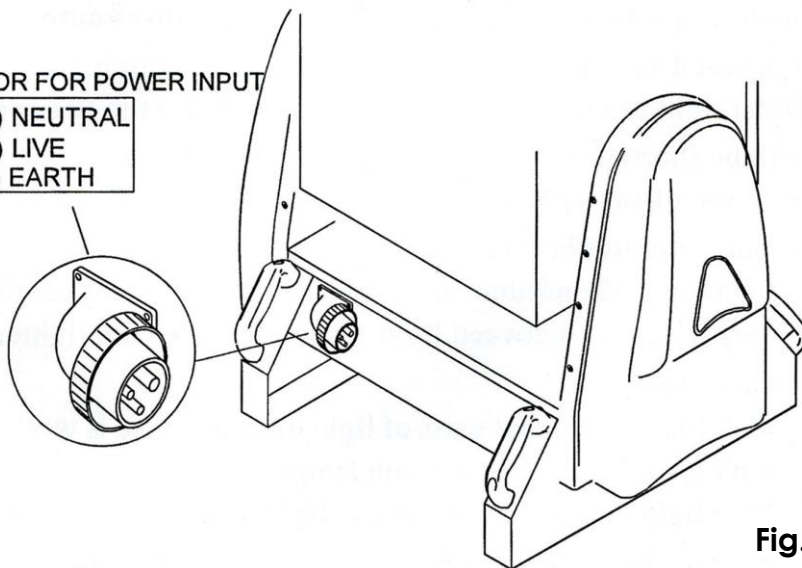


Fig. 2

Installation

Installing the Lamp

The Showtec City Painter 2500 uses the HMI-2500 (ordercode 80903O / 80903P / 80903S) bulb as manufactured by all popular manufacturers. Use only the appropriate lamp for your unit. Note that, product versions that use other lamps, may be offered in the future. Check your product specification label for information.

Always disconnect from electric mains power supply before changing lamps.

The lamp has to be replaced when it is damaged or deformed due to the heat.

Do not install lamps with a higher wattage! Lamps with a higher wattage generate temperatures the device was not designed for.

Damages caused by non-observance are not subject to warranty.

- Always read the safety instructions that are included with the lamp.
- Always wear gloves and goggles when replacing the lamp
- Always read all the safety warnings at the beginning of this manual, before replacing the lamp !!!



The broken lamp must be placed in a safe spot, so it cannot fall or break, because of danger of explosion. The lamp is chemical waste and may not be thrown away. Bring this lamp to a designated collect point for chemical waste.

Procedure :

1. Disconnect power before replacing the lamp.
2. Loosen the 2 screws (A) on the aluminum housing and remove them. Gently open the metal housing (B).
3. Remove the two lateral reflectors (C) and remove the pommels (D). Take out the old lamp.
4. Read lamp instructions. Do not touch the lamp bulb glass.
Oil on hands shortens the lamp life. (If you touch the bulb glass, wipe off the glass with a clean, lint-free towel and rubbing alcohol.).
5. Hold the pommels tightly (D) and put the two lateral reflectors (C) back and fasten the screws snugly.
6. Close the metal housing (B) and fasten the screws (A) snugly.

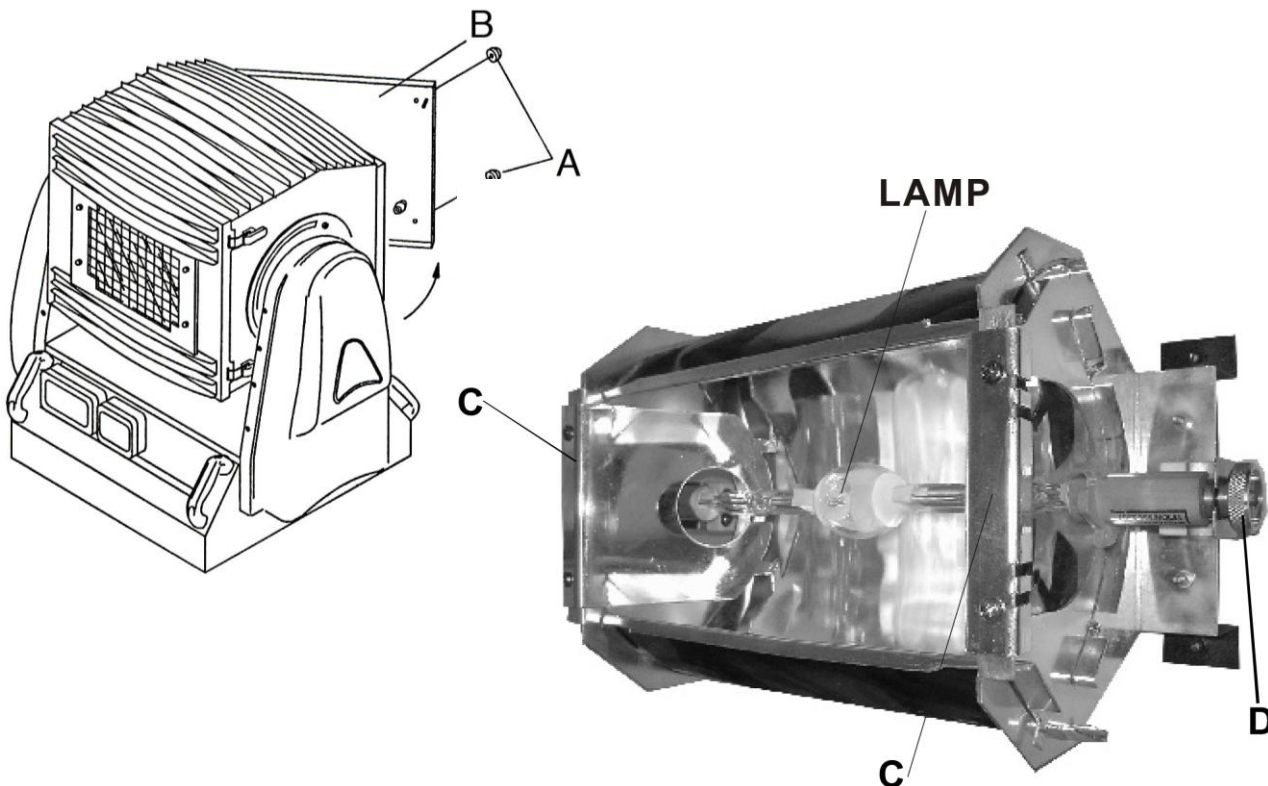


Fig. 3

Set Up and Operation

Follow the directions below, as they pertain to your preferred operation mode.

Before plugging the unit in, always make sure that the power supply matches the product specification voltage. Do not attempt to operate a 120V specification product on 230V power, or vice versa.

One City Painter

1. Leave at least 1 meter on all sides for air circulation.
2. Plug one end of the electric mains power cord into the IEC socket on the unit.
Then plug the other end of the cord into a proper electric power supply socket.

Multiple City painters

1. Leave at least 1 meter on all sides for air circulation.
2. Use a 3-p XLR cable to connect the City Painters and other devices.

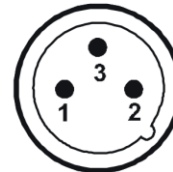
Occupation of the XLR-connection:

DMX-OUTPUT XLR mounting-socket:



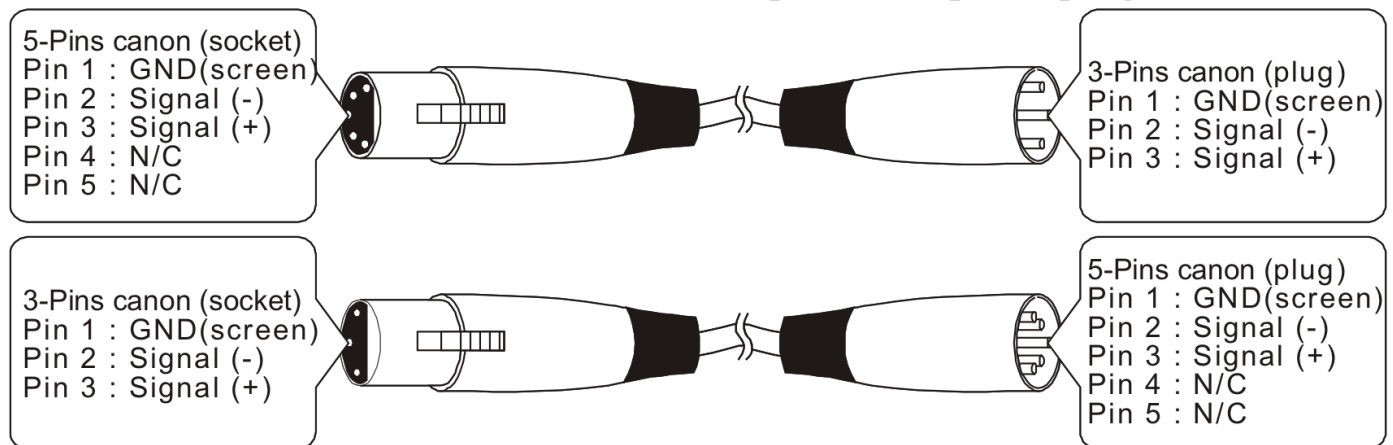
- 1 - Ground
- 2 - Signal (-)
- 3 - Signal (+)

DMX-input XLR mounting-plug



- 1 - Ground
- 2 - Signal (-)
- 3 - Signal (+)

The transformation of the controller line of 3 pins and 5 pins (plug and socket)



3. Link the units as shown, Connect a DMX signal cable from the first unit's DMX "out" socket to the second unit's "in" socket. Repeat this process to link the second, third, and fourth units.
4. Supply electric power: Plug electric mains power cords into each unit's IEC socket, then plug the other end of the mains power cord into proper electric power supply sockets, starting with the first unit. Do not supply power before the whole system is set up and connected properly.

Note: It's necessary to insert a XLR termination plug (with 120 Ohm) in the last fixture in order to ensure proper transmission on the DMX data link.

Multiple City Painters Set Up

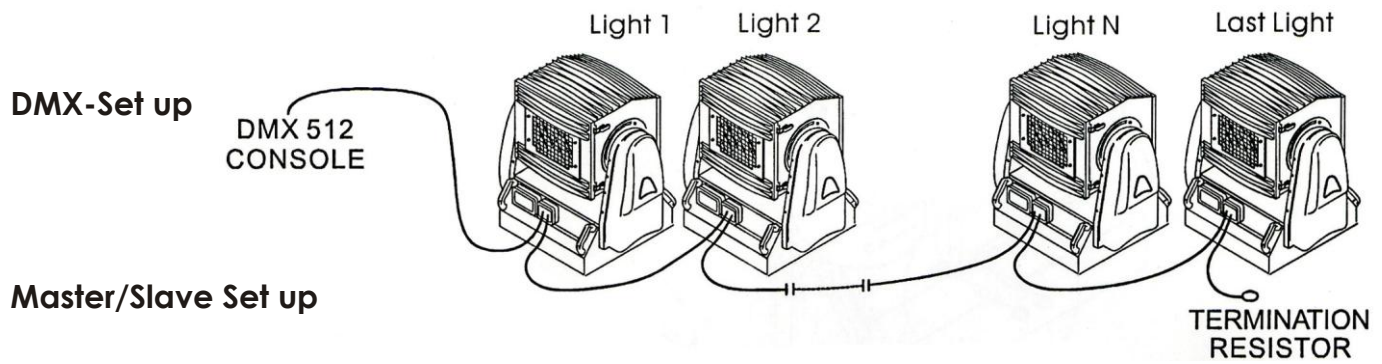


Fig. 4

Note : Link all cables before connecting electric power

5. If the lines have a total length over 150-200 meters, it is recommended to use a signal amplifier. The usage of a normal microphone or audio cable is suggested only for lines max. 100 meter long.

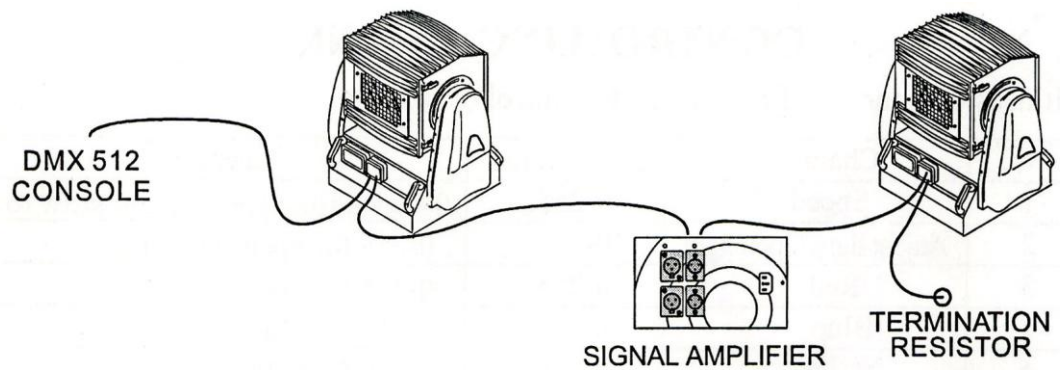


Fig. 5

6. To ensure the IP54 rate, you have to connect the DMX cable inside the base. Use the provided cables (A) and connect the cable numbering (B).

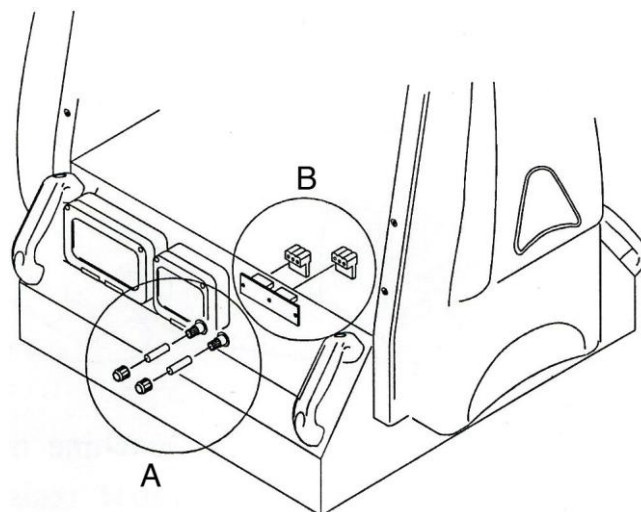


Fig. 6

7. The lamp is a discharge lamp, so it takes about 5 minutes to light the lamp completely. Wait at least 15 minutes to let the lamp cool down completely, before restarting this unit.
8. The light has a self-checking function. The device starts operation after the self-checking function.

DMX Protocol

The City Painter 2500 can be operated with a controller in **control mode** or without the controller in **stand-alone mode**.

Control Mode

DMX Addressing

The control panel on the front side of the base allows you to assign the DMX fixture address, which is the first channel from which the City Painter will respond to the controller.

Please note when you use the controller, the unit has **5** channels.

When using multiple City Painters, make sure you set the DMX addresses right.

Therefore, the DMX address of the first City Painter should be **0(000)**; the DMX address of the second City Painter should be **0+5=5 (005)**; the DMX address of the third City Painter should be **5+5=10 (010)**, the DMX address of the fourth City Painter should be **10+5=15 (015)**, etc.

Please, be sure that you don't have any overlapping channels in order to control each City Painter correctly.

If two or more City Painters are addressed similarly, they will work similarly.

For address settings, please refer to the instructions under "DMX 512 Mode".

Controlling:

After having addressed all City Painter fixtures, you may now start operating these via your lighting controller.

Note: After switching on, the city Painter will automatically detect whether DMX 512 data is received or not. If the device doesn't work with DMX, the problem may be:

- The XLR cable from the controller is not connected with the input of the City Painter.
- The controller is switched off or defective, the cable or connector is defective, or the signal wires are swapped in the input connector.

Note: It's necessary to insert a XLR termination plug (with 120 Ohm) in the last fixture in order to ensure proper transmission on the DMX data link.

DMX Channels

Channel 1 – Speed

0-255	From slow to fast to control the changing speed of the three colors
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Channel 2 – Adjust light / Open light

0-255	Change the light for open and adjust
-------	--------------------------------------

Channel 3 – Red

0-255	Change the color brightness.
-------	------------------------------

Channel 4 – Blue

0-255	Change the color brightness.
-------	------------------------------

Channel 5 – Yellow

0-255	Change the color brightness.
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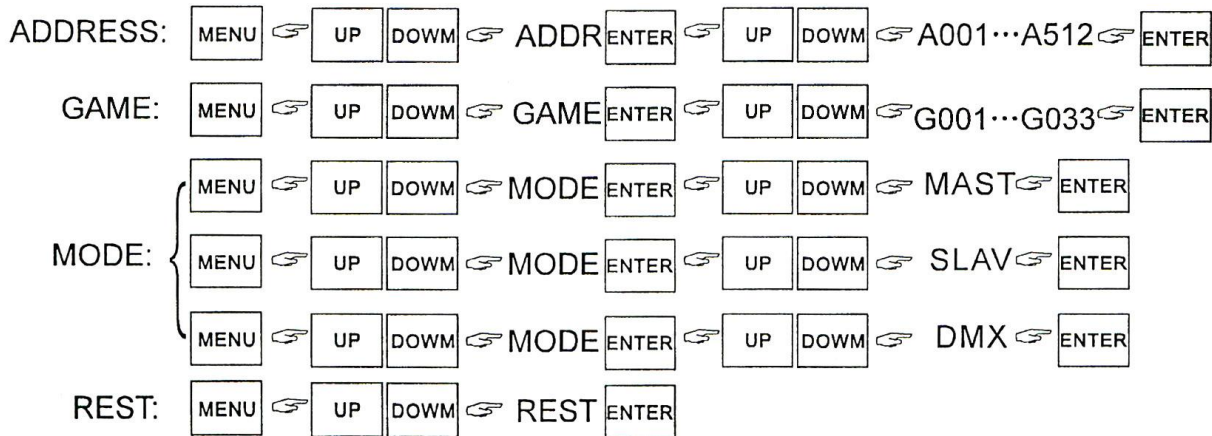
Symbol / LCD Description and Function

UP	Up selecting key
DOWM	Down selecting key
MENU	Open it for each addressing
ENTER	Enter for confirmation

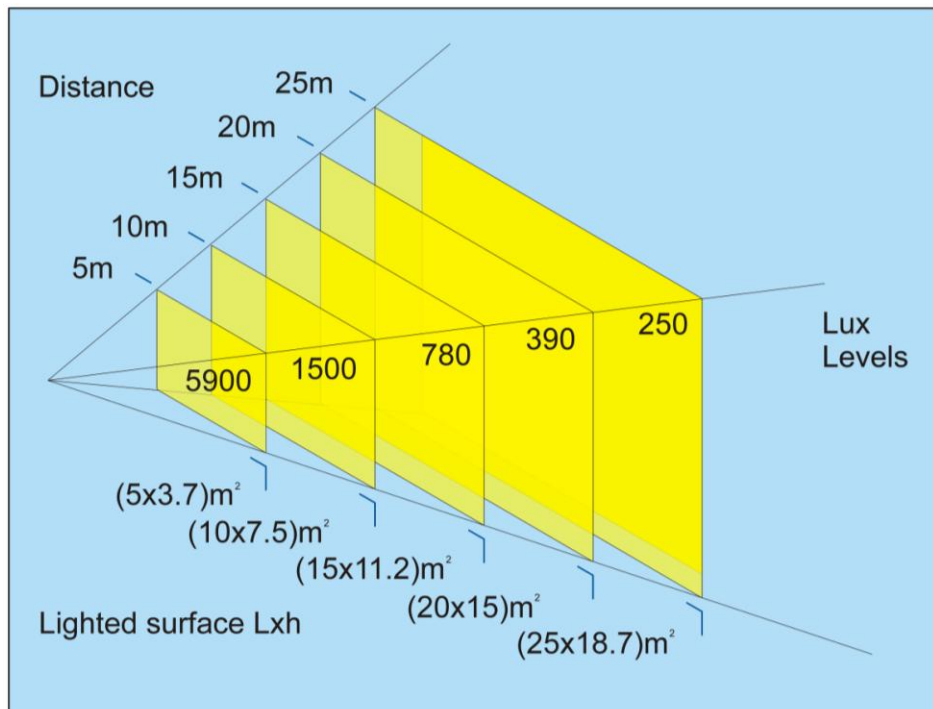
Digital LCD

LCD	WORDS	FUNCTION
ADDR	Address	Channels for addressing (1....512)
GAME	Inner Program	Set Speed, 0 for fastest, 255 for slowest
MODE	Mode	Control made : MAST for main SLAV for slave, DMX for DMX512
REST	Reset	Self-check

Function Mode



Beam Opening

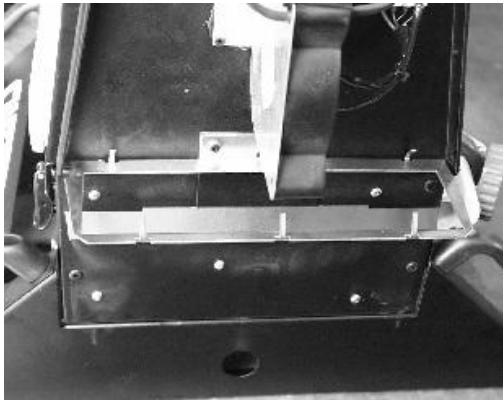


IP RATE

The declared IP rate of the City Painter only works if you meet the following conditions:

- Install the fixture on a wide and stable surface.
- The air cooling input and output are located on the base of the side-shell, it is not possible to install the fixture outdoor with the ballast upwards.
- You must use the filter supplied with the basic kit for the IP 54 rate.
- The City Painter has a IP 44 rate without filters installed and IP 54 rate with the filters installed.
- You must use the filters in critical working conditions and, normal, when the fixture works outdoor.
- You must remove the filters when the ambient temperature is over 35°C.
- You must regularly clean the filters to allow the correct cooling of the fixture.

Installation of the dust proof filters



You must remove the 2 side protective shells.
The 2 filters must be assembled on the bulkheads at the bottom of the side brackets.



Pay attention !

The dust proof filters must stick correctly to prevent the entrance of the dust. You must control that the 2 filters completely cover the overall of the air entrance.

Maintenance

The operator has to make sure that safety-relating and machine-technical installations are to be inspected by an expert after every four years in the course of an acceptance test.

The operator has to make sure that safety-relating and machine-technical installations are to be inspected by a skilled person once a year.

The following points have to be considered during the inspection:

1. All screws used for installing the device or parts of the device have to be tightly connected and must not be corroded.
2. There may not be any deformations on housings, fixations and installation spots.
3. Mechanically moving parts like axles, eyes and others may not show any traces of wearing.
4. The electric power supply cables must not show any damages or material fatigue.

The Showtec City Painter 2500 requires almost no maintenance. However, you should keep the unit clean. Otherwise, the fixture's light-output will be significantly reduced. Disconnect the mains power supply, and then wipe the cover with a damp cloth. Do not immerse in liquid. Wipe lens clean with glass cleaner and a soft cloth. Do not use alcohol or solvents.

The cooling-fans, colour-filters, and the internal lenses should be cleaned monthly with a soft brush.

Please clean internal components once a year with a light brush and vacuum cleaner.

Keep connections clean. Disconnect electric power, and then wipe the DMX and audio connections with a damp cloth. Make sure connections are thoroughly dry before linking equipment or supplying electric power.

Changing the Lamp

1. Disconnect power before replacing the lamp.
2. Loosen the 2 screws (A) on the aluminum housing and remove them. Gently open the metal housing (B).
3. Remove the two lateral reflectors (C) and remove the pommels (D). Take out the old lamp.
4. Follow directions for installing a new lamp, page 7.

Replacing a Fuse

Power surges, short-circuit or inappropriate electrical power supply may cause a fuse to burn out. If the fuse burns out, the product will not function whatsoever. If this happens, follow the directions below to do so.

1. Unplug the unit from electric power source. Unlock the 2 clamps on the lower front of the device. Unscrew the small hexe-screw. Then tilt the upper part of the head.
2. On the right side you will see a PCB Board. There are 3 fuses (3X 15A) on the PCB Board (Fig. 7).
3. Remove the used fuse. If brown or unclear, it is burned out.
4. Insert the replacement fuse into the holder where the old fuse was. Reinsert the fuse cover. Be sure to use a fuse of the same type and specification. See the product specification label for details.

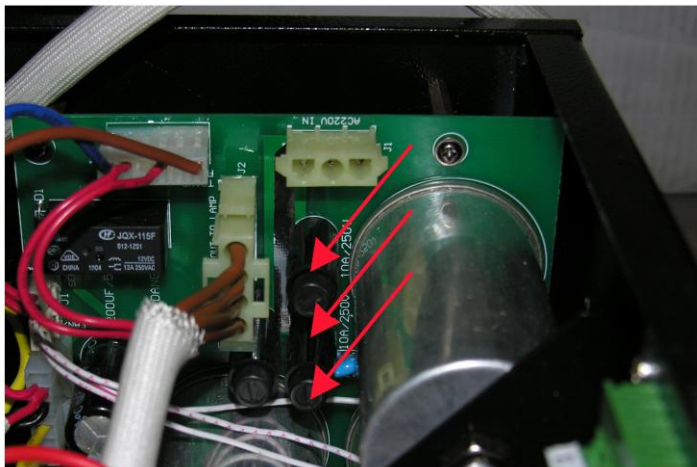


Fig. 7

Troubleshooting

No Light

This troubleshooting guide is meant to help solve simple problems. If a problem occurs, carry out the steps below in sequence until a solution is found. Once the unit operates properly, do not carry out following steps. If the light effect does not operate properly, refer servicing to a technician.

Response: Suspect three potential problem areas: the power supply, the lamp, the fuse.

1. Power supply. Check that the unit is plugged into an appropriate power supply.
2. The lamp. Replace the old lamp with a new one with the same specifications. See page 6 for replacing lamps.
3. The fuse. Replace the fuse. See page 12 for replacing the fuse.

No Response to DMX

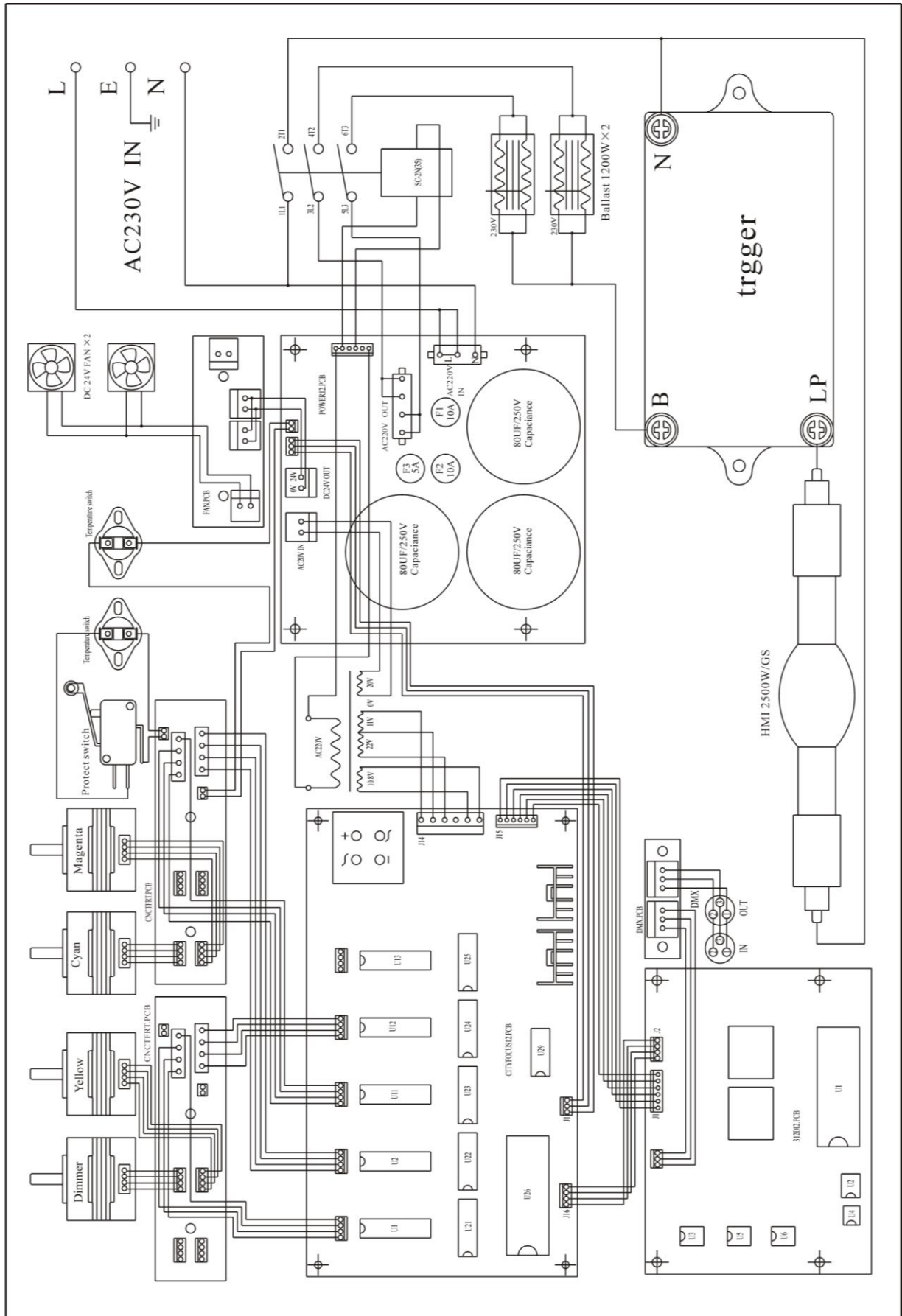
Response: Suspect the DMX cable or connectors, a controller malfunction, a light effect DMX card malfunction.

1. Check the DMX cable: Unplug the unit; change the DMX cable; then reconnect to electrical power. Try your DMX control again.
2. Determine whether the controller or light effect is at fault. Does the controller operate properly with other DMX products ? If not, take the controller in for repair. If so, take the DMX cable and the light effect to a qualified technician.

See next page for more problem solving.

Problem	Probable cause(s)	Remedy
One or more fixtures are completely dead.	No power to the fixture	· Check that power is switched on and cables are plugged in.
	Primary fuse blown.	· Replace fuse.
Fixtures reset correctly, but all respond erratically or not at all to the controller.	The controller is not connected.	· Connect controller.
	3-pin XLR Out of the controller does not match XLR Out of the first fixture on the link (i.e. signal is reversed).	· Install a phase reversing cable between the controller and the first fixture on the link.
Fixtures reset correctly, but some respond erratically or not at all to the controller.	Poor data quality	· Check data quality. If much lower than 100 percent, the problem may be a bad data link connection, poor quality or broken cables, missing termination plug, or a defective fixture disturbing the link.
	Bad data link connection	· Inspect connections and cables. Correct poor connections. Repair or replace damaged cables.
	Data link not terminated with 120 Ohm termination plug.	· Insert termination plug in output jack of the last fixture on the link.
	Incorrect addressing of the fixtures.	· Check address setting.
	One of the fixtures is defective and disturbs data transmission on the link.	· Bypass one fixture at a time until normal operation is regained: unplug both connectors and connect them directly together. · Have the defective fixture serviced by a qualified technician.
	3-pin XLR Out on the fixtures does not match (pins 2 and 3 reversed).	· Install a phase-reversing cable between the fixtures or swap pin 2 and 3 in the fixture, that behaves erratically.
No light	The power supply settings do not match local AC voltage and frequency.	· Disconnect fixture. Check settings (page 6) and correct if necessary.
	Lamp missing or blown	· Disconnect fixture and replace lamp.
Lamp cuts out intermittently.	Fixture is too hot.	· Allow fixture to cool. · Clean fan. · Make sure air vents at control panel and front lens are not blocked. · Turn up the air conditioning.
	The power supply settings do not match local AC voltage and frequency.	· Disconnect fixture. Check settings (page 6) and correct if necessary.

Electrical Diagram



Product Specification

Model: Showtec City Painter 2500

Voltage: 240V-50Hz (CE)

Power: 2680W

Fuse: 3x 15A

Dimensions: 800x520x750mm (LxWxH) incl. handles

Weight: 62,4 kg

Operation and Programming

Signal pin OUT: pin 1 earth, pin 2 (-), pin 3 (+)

DMX Channels: 5

Signal input 3-pin XLR male

Signal output 3-pin XLR female

Lamp

Allowed lamp models*:

Osram HMI 2500 SFa21 (500 hr; 240000 Lumen) (ordercode 80903O)

Philips MSI 2500 SFa21-12 (600 hr; 240000 Lumen) (ordercode 80903P)

Sylvania BA 2500 DE (500 hr; 240000 Lumen) (ordercode 80903S)

Electro-mechanical effects

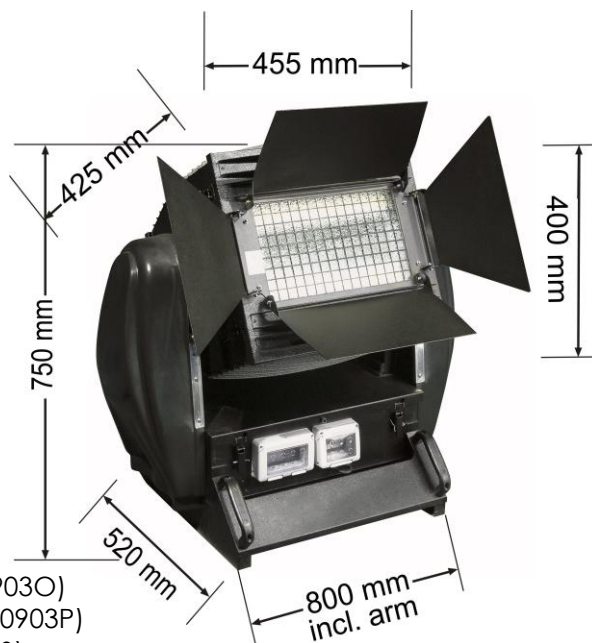
DMX-control via standard DMX-controller

Color effect: 3 Colors (Red, Yellow, Blue) + white, CYM Color changing step

Stand-alone

Master / Slave

DMX-controlled



Minimum distance:

Minimum distance from flammable surfaces: 2m

Minimum distance to lighted object: 5m

*: Versions for other lamps may be produced. Please check the specification label on your product.

Design and product specifications are subject to change without prior notice.



Website: www.Highlite.nl

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